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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/603,425	06/24/2003	Jerry Ditter	PALL.107C1	3308

20995 7590 01/02/2007
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EXAMINER	
CHEVALIER, ALICIA ANN	
ART UNIT	**PAPER NUMBER**
1772	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	01/02/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/02/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com
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Office Action Summary	Application No.	Applicant(s)	
	10/603,425	DITTER ET AL.	
	Examiner	Art Unit	
	Alicia Chevalier	1772	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13-19 and 21-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11,13-19 and 21-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

RESPONSE TO AMENDMENT

1. Claims 1, 3-11, 13-19 and 21-25 are pending in the application, claims 2, 12 and 20 have been cancelled.

2. Amendments to the claims, filed on October 10, 2006, have been entered in the above-identified application.

WITHDRAWN REJECTIONS

3. The 35 U.S.C. §112, first paragraph rejection made of record in the office action mailed July 5, 2006, pages 2-3, paragraph #5 have been withdrawn due to Applicant's amendment in the response filed October 10, 2006.

REJECTIONS

4. **The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.**

Claim Rejections - 35 USC § 103

5. Claims 1, 3, 4, 13-19 and 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chau et al. (U.S. Patent No. 4,873,073) in view of Miller (U.S. Patent No. 4,906,371).

Regarding Applicant's claims 1 and 21, Chau discloses a filter laminate (*col. 1, lines 8-10*) comprising any arrangement of plurality of discrete layers (*figures 2a and 2b*) comprising a

first membrane layer comprising a first membrane and at least a second membrane comprising a second membrane and a bond between each of the adjacent layers (*col. 3, lines 11-32 and col. 6, line 67 through col. 7, line 18*). The filter laminate is deemed to has a flow rate therethough such that the filter is configures for separation by filtration (*abstract*).

The first membrane is a microporous or ultraporous asymmetric membrane and the second membrane is porous (*col. 3, line 12*).

Chau fails to disclose that the laminate comprises a hot melt adhesive bonding layer.

Miller discloses a filter element having an asymmetric microporous membrane (*title, col. 9, lines 46-62*). Miller further discloses bonding the membrane to additional layers with a solventless hot melt adhesive, such that it does not have a low melt temperature that it will not adhesively function at typical heat sterilization and autoclave temperatures (*col. 12, lines 40-51*).

Chau and Miller are analogous because discloses asymmetric microporous membranes in filters.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use a hot melt adhesive as taught by Miller to Chau in order to bond the layers together in order to provide a bonding material that will function under heat sterilization and autoclave temperatures.

Regarding Applicant's claims 3 and 4, Chau discloses that the first and second membrane's are asymmetric (*col. 3, line 12*).

Regarding Applicant's claims 13 and 19, Chau discloses the filter laminate further comprising a third membrane layer (*figures 2a and 2b*).

Regarding Applicant's claim 14, as discussed above Chau does not disclose a hot melt adhesive bonding layer. How ever Miller discloses these limitations.

Regarding Applicant's claim 15, Chau discloses that the first membrane comprises a polymer selected from the group consisting of polyvinylidene fluoride, polyarylsulfone, polyethersulfone, polyamides and celluslosic derivative (*col.4, lines 60 through col. 5, line 18*).

Regarding Applicant's claims 16-18, Chau discloses that the filter further comprises a layer comprising a material selected from the group consisting or polyester, polypropylene, polyolefin, polyethylene, nylon, paper, cellulose, glass fiber, acrylic, and Mylar and/or selected from the group consisting of nonwoven fibrous material, woven fibrous material, web material, sheet material, calendared material, wet laid material, dry laid material, and extruded material (*col.4, lines 60 through col. 5, line 18 and col. 6, line 67 through col. 7, line 18*).

Regarding Applicant's claim 22, the limitation "formed from .." is a method limitation and does not determine the patentability of the product, unless the process produces unexpected results. The method of forming the product is not germane to the issue of patentability of the product itself, unless Applicant presents evidence from which the Examiner could reasonably conclude that the claimed product differs in kind from those of the prior art. MPEP 2113. Furthermore, it shape of the hot melt adhesive before use is not important since after it is melted the original form will not be in the final product.

Regarding Applicant's claims 23-25, Chau discloses that the filter laminate is permeable to water (*col. 12, lines 5-26*).

6. Claims 5-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Chau in view of Miller and further in view of Dennison et al. (U.S. Patent No. 5,006,247).

Chau and Miller are relied upon as described above.

Chau and Miller fail to disclose that the first membrane has a first surface and a second surface, each of the surfaces comprising pores, wherein the pores of the second surface have an average diameter at least about 5 times greater than an average diameter of the pores of the first surface.

Dennison discloses an asymmetric porous membrane (*title*) having a membrane with a first surface and a second surface, each of the surfaces comprising pores, wherein the pores of the second surface have an average diameter at least about 5 or times greater than an average diameter of the pores of the first surface (*col. 8, lines 35-38*). The first membrane further comprises a support structure between the first and second surface, which comprises a reticular network of flow channels connecting the pores of the first surface with the pores to the second surface (*col. 8, lines 30-60*). The flow channels substantially increase gradually in diameter between the first and second surfaces (*col. 8, lines 35-38*). The diameter of the pores on the first surface are about 0.01 to about 10.0 μm or less than about 0.01 μm (*col. 8, lines 35-38*). The membrane is useful as a microfiltration or ultrafiltration separation processes (*col. 3, lines 16-18*).

Chau, Miller and Dennison are analogous because discloses porous membranes in filters.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Dennison asymmetric porous membrane as the porous membrane in the combination of Chau and miller in order to make the filter useful in microfiltration or ultrafiltration.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant's arguments in the response filed October 10, 2006 regarding the previous rejections of record have been considered but are moot since the rejections have been withdrawn.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac
12/22/06

ALICIA CHEVALIER
PRIMARY EXAMINER

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